

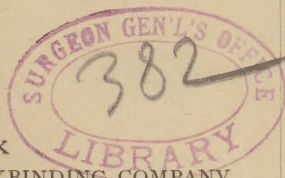
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THE
FUTURE INFLUENCE OF SURGERY
UPON OBSTETRICAL ART

BY
CHARLES CARROLL LEE, M.D.
SURGEON NEW YORK STATE WOMAN'S HOSPITAL, ETC.

Reprinted from THE MEDICAL RECORD, June 12, 1886.



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THE FUTURE INFLUENCE OF SURGERY UPON OBSTETRICAL ART.¹

To those of us who practise obstetrics and gynecology—to those, even, who feel but a languid or a theoretical interest in these branches of medicine—nothing is more impressive than the rapid inroads of surgery into a domain heretofore deemed strictly medical.

Is this just or natural? Is it true, as has lately been said by a famous Scotch surgeon—himself among the most illustrious exponents of abdominal surgery now living—that “the restless surgery of to-day will let nothing alone; it has no patience, . . . and would attack all and sundry in some way or other, till one almost begins to think that individual responsibility has become old-fashioned and gone out of date?”

A most distinguished fellow of this Academy, whose counsel has been equally sought in this hall and in many anxious consultations in our practice, is known to deprecate this tendency of the day, and to feel it a mistake that gynecology should invoke the frequent aid of the knife, or obstetrics of the surgeon’s scalpel.

I have thought it might be profitable, then, to invite your attention to this notable current of medical thought; and, for a few brief moments, to ask your consideration of so important a subject as the future influence of surgery and surgical resources upon obstetrics.

In the past it must be evident that obstetrics was practised as an art from the earliest ages. Although at first

¹ Read before the New York Academy of Medicine, June 3, 1886.

its methods were rude and uncouth, it kept pace with advancing civilization; and the history of every nation of Europe and of the East teems with evidence of this fact.

Thus, while Herodotus records the rough usages that surrounded the parturient woman among the Scythians and the nomadic tribes that were the forerunners of the Persian Empire, Egypt, which was then the fountain whence the arts and civilization overflowed the ancient world, possessed a cultivated medical body familiar with ordinary obstetrical measures, and even with the speculum and other supposed inventions of modern gynecology.

From Egypt the knowledge of medicine in general, and of obstetrics, passed to Greece and Rome; and Hippocrates, who was a contemporary of Herodotus, has left in his "Aphorisms" many obstetrical suggestions which, for better or worse, profoundly influenced this branch of practice for more than a thousand years.

At this early date, and for centuries later, obstetrics and surgery were practised in common, but by degrees the former gradually passed into the hands of women.

In most serious complications, however, the surgeon was still consulted; and his functions extended from the performance of cephalic version to that of the Cæsarean section, which, in spite of many recent denials, was certainly known to the ancients; and, at least as a post-mortem expedient, was occasionally attempted.

As time passed, and as pure surgery extended its sphere in other directions, obstetrics became gradually a distinct specialty; its practice was again resumed by men all over Europe; and, during the last century, what had been a slowly maturing art was raised to the dignity of science, chiefly through the labors of Levret in France, and of Smellie and William Hunter in Great Britain.

The reproach and contumely that had hitherto attached to the "man midwife" was now rapidly swept away; and the purely obstetric practitioner occupied as honorable a position as any of his competitors.

Nevertheless, in cases of extreme or seemingly insuperable difficulty the surgeon's aid was still sought as a last resort ; and before considering what may be the future outcome of this influence, it will be well to review briefly what has already been accomplished.

I begin with the Cæsarean section, to which reference has already been made.

The early accounts of this heroic measure are confused and no doubt unreliable, resting as they do only upon common tradition and the assertion of such writers as Pliny, whose veracity is never above suspicion.

The first unquestioned case of Cæsarean section was that of Trautmann, of Wittenberg, who operated in April, 1610, and whose patient lived nearly four weeks ; although fifty years before this Ambroise Paré (1509-1590) and his pupil, Jacques Guillemeau (1550-1612), had described it—the latter specifying five fatal cases as the basis of his condemnation.

Dr. Harris, of Philadelphia, who is not only the greatest medical statistician this country has produced, but *par excellence* our authority upon this subject, believes it was accomplished more than a hundred years before Trautmann's case, by Jakob Nufer, of Siegenhausen, in Germany, who operated successfully in "or about 1500."

The indications for its performance may briefly be said to be excessive pelvic contraction, and insuperable obstruction by cancerous degeneration of the cervix or encroachment upon the lower pelvis by solid tumors.

If the mother be moribund, or just dead, and the child be known to be living, it may become advisable to effect in this manner the rapid extraction of the child.

The risk entailed may be inferred from the fact that in this country the general mortality of Cæsarean section has been sixty per cent., and in Great Britain eighty-one per cent. (Harris).

In fatal cases the causes of death are, first and chiefly, *delay*, with the shock and exhaustion entailed by it ;

second, peritonitis ; third, septicæmia ; fourth and very rarely, hemorrhage.

The customary method of operating comprises these four stages as tabulated by Lusk : " 1, the incision through the abdominal wall ; 2, the incision through the anterior wall of the uterus, and the extraction of the foetus ; 3, the removal of the placenta, the arrest of hemorrhage, and the cleansing of the peritoneal cavity ; 4, the closure and dressing of the abdominal wound." All this is done with as complete antiseptic environment as possible, and with the usual assistants and appliances necessary in well-conducted laparotomies. Carbolized Chinese silk sutures, in preference to catgut or silver wire, should be used to close the uterine wound. If the placenta be found attached under this line of incision, which occurs about once in three cases (Stoltz), it must be quickly separated, or pushed aside, or cut through, so as to get rapidly at the child. Spiegelberg (" Handbuch der Geburtshülfe ") met with this accident three times, and was finally compelled to cut his way through the placenta to save necessary time. Its risk is the immensely increased hemorrhage to which it gives rise ; but as the extraction of the child is the only means of checking this, any process which facilitates that most rapidly is justifiable.

The uterus may also be pressed out through the abdominal wound, which renders manipulation easier and aids in preventing the escape of fluid into the peritoneal cavity.

Should the hemorrhage cease upon extracting the child, it will be best to wait a few moments for firm contractions before removing the placenta.

If this should not yield readily to gentle traction, the fingers should be passed into the cavity and the placental attachments separated.

As soon as the placenta and membranes can thus be extracted, and the remaining clots removed, the uterus contracts, or should be stimulated to do so, a drainage-tube passed down through the cervix and vagina, and the

cut edges of the womb sutured with wire or carbolized silk.

The uterus is now replaced; the peritoneal cavity carefully and minutely cleansed; and the abdomen closed as after ovariectomy. If oozing from the uterine incision continues after it is sutured, a separate abdominal drainage-tube must be used. The after-treatment is as for other laparotomies.

Four modifications of this Cæsarean operation have lately been proposed, all of them originating in Germany.

1. Frank, of Cologne (*Centralbl. für Gynäkol.*, December 10, 1881), proposed a plan intended to secure perfect drainage, and to make the operation partly extra-peritoneal.

Thus the uterine incision is made low down anteriorly, and around the bottom of this the round ligaments of the womb are drawn together and secured with carbolized silk sutures, thus shutting off the incision from the peritoneal cavity; and from this blind pouch drainage is secured through the vagina.

In performing this operation, which is done antiseptically, the whole uterus is turned out of the abdominal wound before incising it. When it is emptied, a large drainage-tube is passed from the uterine cavity out through the vagina, and the uterine opening is closed above it with catgut; then the round ligaments are united in front, and a small drainage-tube carried from this pouch or pocket down through the vagina. After the tubes are in position the ligaments are sewed together, and the abdominal wound is closed in the usual way.

In one (fatal) case where this was done the peritoneal cavity was found at the autopsy to be quite free from blood or other fluids.

2. In the *Archiv für Gynäkologie*, bd. xix., 1882, Dr. Kehler, of Heidelberg, proposed a plan, which Harris¹

¹ Ashhurst's Internatl. Encycl. of Surgery, vi., 767.

says is not new (Dr. Wallace Johnson having suggested it one hundred years ago), of opening the uterus *transversely* in its lower third anteriorly, partly to avoid the placenta, which is rarely, if ever, implanted at this point, and partly to prevent the gaping of the uterine wound. The extraction is effected as usual; and in closing the wound he uses two sets of sutures—a deep and a superficial row. All antiseptic precautions are observed.

This he has twice done, once successfully; and, in the one fatal case, the uterine wound was found adherent wherever he had covered it with peritoneum.

3. Säger, of Leipsic, proposed in 1881 (*Archiv für Gynäkol.*, bd. xix., tt. 3, 1882) another modification, which, as far as I can learn, has been performed eight times in Germany, with the result of saving six women and eight children. When the abdomen is opened as usual, two strong loops of suture are passed through the edges of the wound at the upper end. Then the membranes are ruptured per vaginam, the uterus is pushed out through the abdominal wound and held vertically, while a carbolized rubber sheeting is adjusted around the cervix to prevent fluid from entering the abdominal cavity. The suture loops are now drawn tight, the uterus is opened longitudinally in front and its contents rapidly removed, while an elastic ligature (of tubing) is tightened around the cervix and the broad ligaments are temporarily clamped. Hemorrhage along the line of the wound is arrested by compression forceps. As the uterus contracts, a drainage-tube is passed from its cavity through the vagina, the peritoneum is dissected back from the cut edges, and a wedge-shaped strip of uterine tissue is pared off the edges of the incision. The free edges of the peritoneum are now turned in, and the uterine wound closed by deep sutures which include the peritoneal and muscular coats, but not the endometrium. Superficial stitches of catgut are added, so as to secure a perfect welt. The abdominal wound is dressed as usual.

Professor Leopold, of Dresden, has done this seven times ; five times with, and twice without, the strip being sliced from the uterine edges ; and at the Copenhagen International Congress he said that in future he would omit this as unnecessary.

In this country three fatal cases, I believe by Jewett, Garrigues, and Drysdale of Philadelphia, have been reported—all apparently because of the delay in resorting to it.

4. Cohnstein, of Heidelberg, has proposed (*Centralbl. für Gynäkol.*, bd. xix., tt. 3, S. 397, 1882) a plan which, so far as I know, has never been practised. This is to turn the uterus out of the abdomen, and to open it longitudinally behind instead of in front, and effect drainage through a tube perforating Douglas' pouch. The advantages claimed for this are that more efficient drainage is thus secured than is possible from an anterior opening ; that the edges of the uterine wound are steadied by its weight and position ; that the greater thickness of the posterior wall will help to prevent gaping of the wound, etc.

But, in spite of all this and much more, the practical difficulty of managing the incision, and the liability of finding the placental attachment there as well as in front, have so far deterred operative surgeons from attempting it ; nor is it likely ever to win favor.

In all cases of Cæsarean section, Harris ("International Encyclopædia of Surgery," vi., 770) thinks the most fatal mistake is *delay*, and the chief desideratum for the future is more perfect knowledge of pelvic deformity among practitioners who attend the poor in large cities ; if this were recognized early in the case, and an experienced consultant called in, many lives now lost could be saved. To lessen the mortality from this cause, certain substitutes for Cæsarean section have been proposed, of which the chief are :

I. The Porro or Porro-Müller operation, with Veit's modification.

II. Laparo-elytrotomy by Thomas' method.

I. The first of these was devised by Professor Edoardo Porro, of the Maternity Hospital of Milan, formerly of Pavia, who in May, 1876, operated successfully on a rachitic primipara, aged twenty-five. He termed the process "utero-ovarian amputation, as complete of Cæsarean section;" and its special object was the diminution of former mortality "by converting the internal uterine wound, with its tendency to gape and discharge septic matters into the abdominal cavity, into one dressed and discharging *without* the peritoneal cavity" (Harris, loc. cit., p. 770).

Dr. H. R. Storer had done the same thing in 1869, but without premeditation, during an ovariectomy, when the tumor proved an uterine fibro-cyst associated with pregnancy.

And the *idea* had long before been expressed by Cavallini, of Florence, in 1768; by Michaelis, of Marburg, in 1809; by Dr. Blundell, of London, in 1828; and by Fogliata, a veterinary surgeon of Pisa, in 1874.

Whether Porro knew of the earlier suggestions is doubtful; of Fogliata's he was ignorant.

All his predecessors had recommended the *entire* ablation of the womb; he excised it at the cervix, and drew the stump into the abdominal wound.

His method, then, is precisely that of the modern antiseptic Cæsarean section, *plus* hysterectomy at the cervix with external treatment of the pedicle.

After the uterus had been incised and evacuated, it was drawn out of the abdomen and held vertically while the wire loop of Cintrat's constrictor was tightened around the cervix, opposite the internal os, and the uterus cut away above it. The abdominal cavity was then cleansed, and a drainage-tube carried through the abdominal wound, through Douglas' pouch, and out of the vagina. The external wound was closed with silver wire, the stump fixed in its lower angle and rubbed with perchloride of iron. Antiseptic dressings were applied; the wire loop was

removed in five days, the woman was well in forty, and the child was saved.

Several modifications of this proceeding have been offered; two only demand notice here.

a. The first, by Professor Müller, of Bern, after eight operations had been done by Porro's method, consisted in turning the pregnant womb out of the abdomen *before* opening it and evacuating its contents. This was to avert the danger of hemorrhage, and the escape of its possibly putrid contents into the peritoneal cavity. Otherwise it is the same as Porro's.

b. The second, by Professor G. Veit, of Bonn, consists in ligating the stump and dropping it back into the peritoneal cavity, or treating it by the *intra-peritoneal* method. This ligation has been done with silk and with silver wire, and with and without peritoneal covering.

Neither of these modifications has been followed by sufficient success to justify the hope that it will supplant the original operation of Porro.

Up to this time Veit's has shown a general mortality of nearly seventy-one and one-half per cent.

Müller's has been entirely unsuccessful in Italy, but less so elsewhere.

Dr. Harris (op. cit., p. 773) says that up to March, 1885, there had been 42 operations by the Müller modification, with 21 mothers and 31 children saved; by the original Porro method 109 operations, saving 46 mothers and 85 children.

These statistics may, of course, soon be modified.

II. Of the second substitute for Cæsarean section, laparo-elytrotomy, it would seem that little need be said in this Academy, which witnessed and welcomed its chief public exposition by its distinguished author. If he had done nothing else in the specialty which he has illuminated with his talent, this alone would entitle him to our lasting gratitude; for such ingenuity, boldness, sound anatomical knowledge, and far-reaching intelligence have rarely been combined in any surgical proposal.

The special object and merit of this proposition are the extra-peritoneal extraction of the child above the pelvic brim, without wounding either the uterus or the peritoneum ; and, consequently, without risking the mortality which has hitherto followed those lesions.

As seems curiously true of many other notable discoveries, this had all been discovered before ; but neither Ritgen, who first attempted it sixty-five years ago ; nor the younger Baudelocque, who, two years later, proposed the same expedient, and actually operated in two cases, which were afterward forgotten ; nor Sir Charles Bell, who, thirty years since, theoretically advised the same procedure, can jeopardize the just claim of Thomas to originality. For, while their efforts were either incomplete or soon forgotten by even the few whose ear they gained, Dr. Thomas, who was unaware of their labors, had the energy to push his new discovery to a practical conclusion, and to bring it before the profession so forcibly that it has permanently taken its place in obstetric literature.

Needless to describe it in detail to you at this late day, for you are all as familiar with it as I am ; and, since the classical essay of Garrigues upon this subject in 1878, it has been incorporated into all recent treatises upon operative midwifery. As to its results, I need only add that Skene and Jewett in Brooklyn, Gillette and Thomas himself in this city, Hinds and Edes in England, have all had successful cases ; and, although the number is as yet too small for any final deduction, the proportionate success is for greater than that of either Porro's operation or Cæsarean section.

Has surgery rendered aught of assistance in extra uterine pregnancy ? Some of its greatest triumphs have been won in this field, and each year brings gratifying evidence of improvement in the methods and technique of such operations.

In the early months—before the fifth month—of ectopic gestation, electricity, which was first employed by Allen,

of Philadelphia, and popularized chiefly by the writings of Thomas and Garrigues, is preferred in this country to the use of the knife.

After that period incision, or excision, should be attempted, either by elytrotomy, laparo-cystotomy, or laparo-cystectomy.

1. In puerperal elytrotomy the upper segment of the vagina is incised so as to reach and remove a foetus in the lower pelvis. This is generally enclosed within the layers of the broad ligament, and has originally been a tubal pregnancy. The operation is rather difficult and fraught with much risk, especially if an attempt be made to tear away the placenta, when profuse hemorrhage ensues.

It has been done in this country, with varying success, by Dr. John King, of South Carolina, in 1816; by Hayes Agnew and A. H. Smith, of Philadelphia; by Thomas, of New York, and by Dr. Mathiesen, of Ontario, Canada. Thomas advises that the vagina be divided by the galvano-caustic knife, to avoid the danger of hemorrhage.

It is rarely applicable in practice.

2. Puerperal laparo-cystotomy is the process of opening the abdomen and the enveloping cyst for the purpose of extracting the enclosed foetus. This may be done either to remove a *living* foetus, or after the foetus is known to be dead; and the operations are respectively called *primary* and *secondary*.

The procedure is not of modern date, Harris quoting one by Christopher Bain, a German, in 1540; and by Paul Calvo, of France, in 1714. Both of these were *secondary* operations.

Professor R. Werth, of Kiel, tabulated, in 1884, 17 primary operations, with 2 recoveries and 15 deaths.

These two were at the eighth month of gestation, and were done by Jessop, of Leeds, in 1875, and by A. Martin, of Berlin, in 1881. A full report of the details of these remarkable cases will be found in Dr. Harris' eru-

dite article in the "International Encyclopædia of Surgery," vol. vi., p. 783.

The cause of the great mortality in most of these cases was the location of the placenta and the difficulty of dealing with it.

Even an explorative incision, as recommended by Tait, is full of risk, as we may cut into the placenta or fail to find its location until we are compelled to remove the foetus.

Any one of the three main forms of ectopic gestation—the abdominal, ovarian, or fallopian—may give rise to this indication.

3. Laparo-cystectomy is practically the same as the foregoing, except that the enveloping cyst is removed with the foetus.

If this can be done at all, it is easier and safer than the preceding measure; because here the placenta is encapsulated with the foetus, and, in the complete ablation of the sac or cyst, the risk of placental hemorrhage is avoided.

Of *lacerations* of the *cervix* and of the *perineum*, and of their immediate repair, so much has been written that I shall make only the most passing reference to this subject.

I have never been so fortunate as to succeed in closing a lacerated cervix at the time of labor, though I have made a number of efforts in that direction; nor have I known of more than one surgeon who claims to have accomplished this. But, with our constantly improving appliances and resources, that this *will* be accomplished in the early future I firmly believe.

With *lacerations* of the *perineum*, however extensive they be, and whether complete or incomplete, the case is very different. Here the advantages of immediate closure are so immense in saving the unfortunate patient from the discomforts of prolapse, and the greater misery of *prolapsed* of the *womb*, that the obstetrician is derelict in his duty who fails to avert this by immediately repairing the perineal tear if the latter be at all extensive.

Were this systematically done, it is no exaggeration to say that hundreds of young mothers who lead invalid and useless lives at home, or who fill the gynecologist's consulting-rooms, would be restored at once to their family duties. So imperative does this duty seem to me that I would as soon think of leaving the placenta undelivered in the uterus as a deeply torn perineum unrepaired.

Much more might be said upon so suggestive a theme, but the proper limits of this paper have already been passed.

Suffice it, then, to say, in conclusion, that if the application of surgical resources to obstetrics in the ten or twenty years just past has been so beneficent, saving, as it has surely saved, the lives of hundreds of women and children who, but for such aid, would long since have been in their graves, we have no cause to fear that the future will be less productive of good. The hand upon the dial of time never moves backward. And so firm is the foothold obstetric surgery has now obtained that one need be no optimist to believe its future outcome will be more brilliant than any of its past achievements.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 3, 1886.

ABRAHAM JACOBI, M.D., PRESIDENT, IN THE CHAIR.

DR. C. C. LEE read a paper, entitled

THE FUTURE INFLUENCE OF SURGERY AND SURGICAL RESOURCES UPON OBSTETRICS.

The discussion was opened by DR. W. M. POLK, who said that he would not attempt to speak on the operations which Dr. Lee had described so graphically, and which were a sufficient answer to the question implied in the title of his paper. When he began to teach it was in the department of general medicine, therapeutics, and materia medica. But in the course of time he began to teach obstetrics, and he went from one department into the other with the feeling that much the larger part of obstetrics was in the domain of medicine. His education, doubtless, had had much to do with that sort of feeling, for it had been largely influenced by the most accomplished teachings of Professor Fordyce Barker, and he was free to confess that when he stuck to the doctrines inculcated by that eminent teacher he had rarely gone wrong. However, he saw, after a while, that there were certain surgical bearings, which, if neglected, would soon push the practitioner to the wall, and stick him to the wall, and that fact led him to look into the history of the entire question, from which he had been brought to the conclusion that the most successful obstetricians had been those who united as thoroughly as possible the qualifications of the accomplished physician and the skill-

ful surgeon. He had also been led to think that the tendency of the obstetric surgeon was perhaps to do a little more with his knife than his cases demanded. For example, immediate repair of laceration of *the cervix* during parturition, he believed, might better be left to nature aided by cleanliness, rather than at once to resort to operative interference.

But, surgically speaking, obstetricians had been obliged to fight their way against the opposition of those who were imbued with the idea of the mere physician, on the one hand, and upon the other hand, the active opposition of those who were engaged in general surgical work. But, as evidence that finally an enviable position had been attained, he had only to point to the results which had been secured in abdominal surgery. He had no doubt whatever that those who were engaged in abdominal surgery would soon settle the question of Cæsarean section successfully; that the day would come, and was not far away, when craniotomy would be eliminated from obstetric operations; and when that could be done, and successful Cæsarean section could be substituted for it, they would be in a position to say that the greatest work ever accomplished in surgery belonged to obstetricians.

DR. J. H. FRUITNIGHT regarded immediate repair of a lacerated perineum as one of the greatest advances which had been made in obstetric surgery, notwithstanding the fact that nature frequently does the repairing satisfactorily. If craniotomy could be relegated to the past, and Cæsarean section become the substitute, it would be one of the greatest triumphs which obstetrics could achieve.

DR. FORDYCE BARKER thanked Dr. Polk for his kind and complimentary remarks, and said that he was willing to accept the position of one belonging to the class known as midwives, in the sense that he was not a surgeon. Very soon after he began to practise in New York he found that he had in the surgical field such competitors as Marion Sims and others, and, having a natural dislike

to procedures belonging to this class of cases, he believed that he exhibited some sagacity by referring the operations belonging to surgical obstetrics to his colleagues, and in giving his attention to those which belong purely to obstetric art. The progress in obstetric surgery had been so rapid that he had been unable to keep fully apace with its advance, and constitutionally he was not inclined to accept new propositions because they were new, and, on the other hand, was not inclined to deny their truth because they were new ; yet, he would express his opinion on one point in the paper, the whole of which he was unavoidably deprived of the pleasure of hearing, and that was with regard to *primary operations for lacerations of the perineum with parturition*. He recalled the statement of an eminent member of the profession, who once said that "any physician who did not close by the immediate operation a laceration of the perineum neglected to do his duty." At the time it struck him as rather a strong proposition to make, and also rather doubtful, but he did not antagonize the view, and thought that he would wait for its proof, and he had been waiting ever since. Perhaps he might be biassed by one fact—the utterance of which might seem a little pugnacious, but he challenged contradiction—and it was that in no case in his own private practice had even the secondary operation been performed by any of our surgical gynecologists ; in no case had it been required. He did not mean to say that he had never met with laceration of the perineum, for he had had these cases, but he had watched them closely, and in every case the secondary operation had not been performed by anyone. In his hospital practice such cases may have occurred, but not in his private practice. He was willing to go still further and say that in no case of his had the primary operation been performed until last winter ; last winter he had one in which he thought that the primary operation was necessary, and it was performed. Although the greatest care was taken of the patient, union did not take place. The case was one of

justo minor contraction of the pelvis, in which he delivered a living child, weighing eleven pounds, with Simpson's modification of Tarnier's forceps, and extensive laceration was produced.

Between the first of February and the first of May he had seen, in consultation, forty cases, which presented a peculiar train of symptoms. Previous to the sixth day after confinement there were no symptoms, and then they exploded violently, with extremely rapid pulse, temperature of 104° to 106° F., etc. These violent symptoms, in all the cases except one, disappeared within three days. Only one patient died. Of the forty, five had had the primary operation performed; in only one did union take place. He had repeatedly watched the result of the primary operation after it had been performed by others, and in two cases he had seen profuse hemorrhage in consequence of the shock and exhaustion. In other cases he had been informed that the operation was successful.

Dr. Barker then referred to special cases. One in which, with the first labor, extensive rupture of the perineum occurred, and union occurred spontaneously. In the second labor, a very extensive laceration took place up to the sphincter. In that case he called Dr. Lusk in consultation, who was an advocate of the primary operation, but thought it inadvisable to operate in that case, and the patient, Dr. Barker thought, had very good union. Another similar case was narrated briefly.

Dr. Barker, therefore, would say that he had seen very many cases in which complete union had taken place, sufficient for all practical purposes, the laceration never having interfered with the position of the uterus or the comfort of the patient; and now, for the first time, he would say that he thought there were many cases in which the circumstances and conditions were such that it would be wise to perform the primary operation, with the hope that union would take place without exhausting the patient; but that in every case the question must be

decided by a careful analysis of all the symptoms and conditions. As a general rule, however, he would say that it was safer to avoid the operation, trusting to absolute cleanliness, watchfully seeking for the healthy performance of all the general functions to effect a cure, and in the large majority of cases recovery will take place without the operation.

With reference to the title of the paper, there was no doubt that the future influence of surgery and surgical resources upon obstetrics would be very great ; but it seemed to him that the real influence was that which gynecological and obstetric surgery had produced upon general surgery. Dr. Barker then referred to the remarkable paper on "Laparotomy for Penetrating Wounds of the Abdomen," read before the Academy by the late J. Marion Sims, and to the remarks made in reply by the late James R. Wood. Professor Wood's argument was that gynecological surgeons had opportunity to prepare their patients for this class of operations, whereas the general surgeon was called upon to operate under entirely different circumstances, with the patient suffering from, or just emerging from, severe shock, etc. In the majority of cases this was, perhaps, true, and in general the better the condition of the patient, the more likely was the operation to be successful. But the argument did not hold in all respects ; there was another side to that view. It was a general principle, well established, that where a source of irritation which was rapidly destroying the patient could be removed by an operation, it was an argument in favor of performing it under circumstances as unfavorable as any which the general surgeon had to meet. This principle was announced by Sir Spencer Wells, and until then the existence of peritonitis or pus in the abdomen, due to the existing tumor requiring operation, was regarded as a contra-indication ; but guided by it, such conditions were to be regarded as indications for the performance of the operation. The application of this principle was illustrated by a case in the practice of the

late Washington L. Atlee, and Sir Spencer, who was present, said, that "although it is not a favorable case, it is the duty of the operator to perform the operation." Dr. Barker thought that not a single person present at the operation expected that the patient would recover, but she did make a good and prompt recovery as soon as the source of irritation was removed.

DR. MALCOLM MCLEAN spoke in favor of the primary operation for lacerated perineum, always using a soft suture, like silk. He had not seen it do any harm, and in these days, at least, it gave moral support in a case of non-union.

DR. H. J. BOLDT entered his protest against the primary operation for laceration of the cervix during parturition, unless there was some urgent indication, like profuse hemorrhage, evidently due to the injury.

DR. POLK, in reply to a question asked by Dr. Barker, said that his views regarding the primary operation for lacerated perineum coincided with Dr. McLean's, although there were many cases where the shock of the operation would be such as to make it unjustifiable to subject the patient to it. His rule had been to introduce a suture in most cases, and he always used the silk suture; indeed, he had abandoned the use of wire in all operations, whether primary or secondary.

DR. LEE, in closing the discussion, said that it was his custom to perform the primary operation for lacerated perineum, using silk sutures and perhaps two or three catgut sutures. He had not seen shock increased by the operation. Although he had seen cases in which he thought it inadvisable to do any operation, he thought that, in the great majority, the primary operation, if done properly, quickly, gently, and while the patient was under an anæsthetic, would not produce shock, nor would it increase the chances of the occurrence of septicæmia. So far, his cases had done well, but he had seen a great number of disastrous results which came from neglect to perform this simple operation.

